

Notice of Allowability

Application No.

10/722,128

Examiner

Susan S. Lee

Applicant(s)

NAKAZATO, HIROSHI

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to ____.
2. ☒ The allowed claim(s) is/are 1-43.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 11/26/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date ____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other ____.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

As to claim 15, line 8, after "controls", change "the" to - - an - - because there is no previous recitation of an exposure volume.

As to claim 16, line 10, after "controls", change "the" to - - an - - because there is no previous recitation of an exposure volume.

As to claim 39, line 7, after "constitutes", change "the" to - - a - - because there is no previous recitation of the toner image.

The following is an examiner's statement of reasons for allowance:

The primary reason for allowance of claims 1-10 is the inclusion of an amount of toner consumption calculated based on a total of a first integrating value that is obtained by integrating a first toner amount that is consumed during an ordinary toner image forming operation, and a second integrating value which is obtained by integrating a second toner amount which is consumed during an operation under a non-ordinary mode which is different from the ordinary toner image forming apparatus. This is found in all of claims 1-9, but not disclosed nor suggested by the prior art of record.

The primary reason for allowance of claim 11-17 is the inclusion of detecting means executing a first toner amount detecting process that is based on the image signal which is fed to the image forming means through a first route, executing a second toner amount detecting process that is based on the image signal which is fed to the image forming means through the second route, and ensuring that the first toner amount detecting process is different from the second toner amount detecting process. This is found in all of claims 11-17, but not disclosed nor suggested by the prior art of record.

The primary reason for allowance of claim 18 is the inclusion of a method of a first detection step of detecting a toner amount of toner which is consumed as the image forming means forms a toner image based on an image signal that is fed to the image forming means through a first route; a method of a second detection step of detecting a toner amount of toner which is consumed as the image forming means forms a toner image based on an image signal which is fed to the image forming means through a second route; and a step of calculating a toner consumption amount based on an integrating value that is obtained by integrating the toner amounts detected at the first detection step and at the second detection step. This is found in all of claim 18, but not disclosed nor suggested by the prior art of record.

The primary reason for allowance of claims 19-23 is the inclusion of a consumption amount calculating means that adds a toner amount of toner that is used in an ordinary toner image formed by the image forming means and a toner amount, as an offset value, of toner which is consumed separately from the toner that is used in the

ordinary toner image; and offset value setting means that changes the offset value in accordance with an operation signal inputted from the controller. This is found in all of claims 19-23, but not disclosed nor suggested by the prior art of record.

The primary reason for allowance of claim 24 is the inclusion of a toner consumption amount calculating step of adding a toner amount of toner that is used in an ordinary toner image formed by the image forming step and a toner amount, as an offset value, of toner which is consumed separately from the toner that is used in the ordinary toner image; and offset value setting step that changes the offset value in accordance with an operation signal inputted from the controller. This is found in all of claim 24, but not disclosed nor suggested by the prior art of record.

The primary reason for allowance of claims 25-29 is the inclusion of a consumption amount calculating means that adds a total amount of image constituting toner that constitutes the toner image and a toner amount, as an offset value, of toner which is consumed in forming the toner image separately from the image constituting toner, thereby calculating, in the predetermined unit, a toner consumption amount of toner which is consumed as the toner image is formed; and offset value setting means that changes the offset value in accordance with an operating state of the image forming apparatus. This is found in all of claims 25-29, but not disclosed nor suggested by the prior art of record.

The primary reason for allowance of claims 30-34 is the inclusion of a consumption amount calculating means that adds a total amount of image constituting toner that constitutes the toner image and a toner amount, as an offset value, of toner

which is consumed in forming the toner image separately from the image constituting toner, thereby calculating, in the predetermined unit, a toner consumption amount of toner which is consumed as the toner image is formed; and offset value setting means that changes the offset value in accordance with a history of use of toner. This is found in all of claims 30-34, but not disclosed nor suggested by the prior art of record.

The primary reason for allowance of claim 35 is the inclusion of a consumption amount calculating means that adds a total amount of image constituting toner that constitutes the toner image and a toner amount, as an offset value, of toner which is consumed in forming the toner image separately from the image constituting toner, thereby calculating, in the predetermined unit, a toner consumption amount of toner which is consumed as the toner image is formed; and offset value setting means that changes the offset value in accordance with an image forming condition that is used in forming the toner image. This is found in all of claim 35, but not disclosed nor suggested by the prior art of record.

The primary reason for allowance of claim 36 is the inclusion of a step of calculating a total amount of image constituting toner that constitutes the toner image and calculating a toner amount, as an offset value, of toner which is consumed in forming the toner image separately from the image constituting toner; adding the total amount of image constituting toner and the offset value, thereby calculating a toner consumption amount of toner which is consumed as the toner image is formed; and changing offset value in accordance with an operating state of the image forming

apparatus. This is found in all of claim 36, but not disclosed nor suggested by the prior art of record.

The primary reason for allowance of claim 37 is the inclusion of a step of calculating a total amount of image constituting toner that constitutes the toner image and calculating a toner amount, as an offset value, of toner which is consumed in forming the toner image separately from the image constituting toner; adding the total amount of image constituting toner and the offset value, thereby calculating a toner consumption amount of toner that is consumed as the toner image is formed; and changing offset value in accordance with a history of use of toner. This is found in all of claim 37, but not disclosed nor suggested by the prior art of record.

The primary reason for allowance of claim 38 is the inclusion of a step of calculating a total amount of image constituting toner that constitutes the toner image and calculating a toner amount, as an offset value, of toner which is consumed in forming the toner image separately from the image constituting toner; adding the total amount of image constituting toner and the offset value, thereby calculating a toner consumption amount of toner that is consumed as the toner image is formed; and changing offset value in accordance with an image forming condition that is used in forming the toner image. This is found in all of claim 38, but not disclosed nor suggested by the prior art of record.

The primary reason for allowance of claims 39-42 is the inclusion of a consumption amount calculating means that adds a total amount of image constituting toner that constitutes the toner image and a toner amount, as an offset value, of toner

which is consumed in forming the toner image separately from the image constituting toner, thereby calculating a toner consumption amount in the predetermined unit, for each color component; storage means that stores a plurality of offset values corresponding to the plurality of color components respectively, wherein the offset value corresponding to the color component used in forming the special image is set to be larger than the offset values corresponding to the other color components. This is found in all of claims 39-42, but not disclosed nor suggested by the prior art of record.

The primary reason for allowance of claim 43 is the inclusion of a step of calculating a total amount of image constituting toner that constitutes the toner image of the original image in a predetermined unit for each color component; setting a plurality of toner amounts of toner that is consumed during the color printing separately from the image constituting toner, as a plurality of offset values for respective color components; and adding the total amount of image constituting toner to the offset value for each color component, thereby calculating a toner consumption amount. The offset value corresponding to the color component used in forming the special image is set to be larger than the offset values corresponding to the other color components. This is found in all of claim 43, but not disclosed nor suggested by the prior art of record.


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Budnik et al. and Kaneko disclose art in developing apparatuses.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan S. Lee whose telephone number is 571-272-2137. The examiner can normally be reached on Mon. - Fri., 10:30-8:00, Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Art Grimley can be reached on 571-272-2136 or 571-272-2800 (Ext. 52). The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Susan S. Lee
Primary Examiner
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